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MYELOGENOUS AND LYMPHATIC LEUKEMIA

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I have been asked to tell something about my work with blood diseases. I have chosen as my subject, "Leukemia," as I feel that as nurses we come in contact with this terrible disease less often than any other, and have, therefore, considered it a rare condition.

Review of the literature.—It has been stated that in 1845, Huges Bennett recorded a case of "suppuration of the blood with enlargement of the spleen and liver," and he afterward gave the disease the name of "Leukocythaemia." A month later, Virchow described a similar condition of "white blood" to which he gave the name of "Leukemia." In 1870, Neuman made extensive studies of this disease, and determined the importance of the changes in the bone marrow in connection with it. Banti, Warthin, and others regard the disease as related to myeloma and sarcoma.

The nature of the disease is unknown. There is no age at which any form of leukemia may not occur; but on the whole, the spleno-medullary form affects adults rather than children, whereas the lymphatic affects children rather than adults. The acutely fatal cases resemble an infection, but no organisms have been determined.

Varieties.—Although the majority of cases of leukemia belong either to the spleno-medullary or the lymphatic form, there are cases in which the symptoms and the blood changes partake of the character of both. Cases are divided into three groups: (1) the myelocytic, or myeloid, corresponding to the spleno-medullary type, and (2) the lymphoid, which represents the lymphatic variety. The differences in the types of the disease depend on the dominance of the myeloid or lymphoid process, (3) some cases not fitting accurately into either type are called "atypical" or "transitional" forms.

Just at present I am deeply interested in a case of polycythemia whose blood picture has completely changed and now resembles an "atypical" myeloid leukemia, and also in three cases of Hodgkins whose blood pictures have changed and now resemble typical lymphatic leukemia. I have searched dilligently through the literature and find no similar instances.

I. MYELOID LEUKEMIA.

Etiology.—The disease is more common in males than females, and between the 25th and 45th years. The youngest case at the Huntington Hospital was a child two and a half years old.

In taking the histories of these patients I have been interested to

note that in many cases it has followed pneumonia. In some instances it has followed an injury. Cases occur under the most favorable conditions of life. In no instance have I found history of this disease in the family. There is on record a case which passed through three pregnancies, leaving on each occasion a non-leukemic child. One of this patient's children had leukemia before the mother showed signs of the disease, and the patient's grandmother, mother, and brother suffered from symptoms strongly suggestive of leukemia.

The spleen is greatly enlarged, the weight may range from two to twenty pounds. The kidneys are often enlarged.

Symptoms.—As a rule the onset is insidious, epistaxis is common. Patients generally consult the physician for progressive enlargement of the abdomen and shortness of breath or pallor, palpitation, and other symptoms of anemia. Deafness, diarrhoea, dizziness, and headache are early features in most cases. Priapism is a curious symptom observed in many cases. The gradual increase in the volume of the spleen is the most prominent feature with pain and tenderness in the splenic area. Fever is generally present, temperature ranging from 100° to 103° F.

Blood.—The diagnosis must be made by the examination of the blood, as it alone offers distinctive features. There is an enormous increase in the white blood corpuscles. The average in my series of 60 myeloid cases was 400,000 per c. mm. In one instance the number of leucocytes equaled that of the red corpuscles. The increase is generally in the abnormal cells, the myelocytes, which range from 35 to 60 per cent. The red cell count may be normal, but there is a slight anemia. The count may fall to 900,000. The blood platelets are markedly increased. When anemia ultimately ensues it is of the chlorotic type. The disease lasts from one to five years.

II. LYMPHOID LEUKEMIA

This type seems to be less common, and occurs more frequently in males. The course of the acute type is rapid and fatal, death resulting within three or four months, death has occurred as early as the seventh day. It is the most terrible of all the blood diseases. Among the early symptoms are angina, often of an ulcerative character, involving the tonsils and the pharynx. The glands of the neck become swollen and the patient rapidly becomes anemic. The temperature may range from 102° to 105° F., and the case may be mistaken for malignant typhoid or typhus fever. There are cases in which no glands are enlarged, the diagnosis not being at all obvious without a blood count.

The chronic form is a very different disease, occurring later in

life, beginning with a general enlargement of the lymph glands, first in the cervical, then in the axillary and groin. The spleen may be enlarged.

Blood.—The most striking feature is the increase of lymphocytes, which often reach 99 per cent. The small lymphocytes are found in the majority of the chronic cases although there are a few types and so called "fragile" cells.

III. ATYPICAL LEUKEMIA

These are cases in part myeloid and in part lymphoid

Diagnosis.—The diagnosis is afforded at once by the differential blood count in the majority of cases.

Prognosis.—Recovery in leukemia is practically unknown.

Treatment.—There are certain remedies which have an influence upon the disease. Arsenic is the best drug which has a positive value in the disease. Benzol, quinine, tuberculin and X-rays have reduced the glands, spleen, and leucocyte count. At the Huntington Hospital, radium is the only treatment given, as we consider this the most efficacious. A series of treatments will markedly reduce the size of the spleen and the white blood count may return to normal for a period. However, there are curious remissions in the disease which render therapeutic deductions very fallacious. Excision of the spleen has been performed many times with few recoveries.

THE NEGRO PROBLEM AS IT APPEARS TO A PUBLIC HEALTH NURSE

BY SARAH B. MEYERS, R.N.

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No greater task confronts the south to-day than that of converting the southern negro into a being who recognizes the laws of health and sanitation and who is willing to put them into practice in his every-day living. The magnitude of this undertaking cannot be grasped by those who are not brought face to face with the situation, but a visiting nurse in a west Kentucky town, who comes into daily contact with the negroes in their homes—or shacks, more accurately speaking—feels that the people of the community must be awakened to the fact that, through these negroes, disease is brought into the homes, and that, for the sake of their own health and happiness, if for no other reason, they should coöperate with the health officers, doctors, nurses and health and welfare organizations in an effort to